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ABSTRACT

Ethnographic auditing is the application of ethnographic or anthropological concepts and methods to the appraisal of administrative controls over resources. Ethnographic auditing highlights the role of culture, subculture, values, rituals and physical environment in management in higher education. The ethnographic auditor measures the fiscal and operational backbone of an organization within its cultural content. Auditing is a formative evaluation of the management process in the educational institution. Auditing looks for manifestations of meaning, cognition, competence and quality. An auditor has access to all facets of the organization. The auditor evaluates management's functions and adds insight to the operational components of a department. Ethnographic auditing evaluates management on a cultural level of analysis. The evaluator who combines the auditor's concern over resource control with ethnographic or qualitative methods is able to address the more penetrating management issues of higher education. Auditing a university on a cultural level requires attention to both specific practices and underlying systems. Two case studies of a university library and a chemistry department are presented to illustrate ethnographic auditing's contribution to the improvement of management. (BAE)

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Ethnographic Auditing: A New Approach to Evaluating Management in Higher Education

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Ethnographic Auditing: A New Approach to Evaluating Management in Higher Education

Management is assuming an increasingly important role in higher education. Universities and colleges throughout the United States are becoming aware of the importance of managing their limited resources effectively and efficiently. Fiscal consciousness raising was prompted initially by declines in the national economy and the consequent drop in federal spending. Educational institutions entered a period of retrenchment in the late 70's (Bowen 1979; Mayhew 1979; Riesman 1979; Wolotkiewicz 1980). Many institutions responded to difficult fiscal times with arbitrary budget cuts and wholesale elimination of non-core programs and of departments with low enrollments (Jedamus, Peterson, and Associates 1980; McCorkle and Archibald 1982).

Educational institutions are now entering a new and more positive phase in their confrontation with fiscal realities. This phase is characterized by a striving towards excellence. Universities are attempting to increase operational productivity in quantity and quality (Garvin 1980; Hopkins and Massy 1981; Karol and Ginsburg 1980; Van Maanen 1983; Wolotkiewicz 1980). In this pursuit toward excellence, both evaluation and auditing have been useful in streamlining operations and increasing productivity. Although evaluation and auditing differ in their guiding principles and topic interests, they share a common goal - the improvement of the educational institution. Auditing is, in essence, a form of educational evaluation. To bridge the overarching concerns of educational evaluators and management, however, auditing must adapt. The purpose of this discussion is to introduce ethnographic auditing as a new approach to evaluating management in higher education. Auditing from an ethnographic perspective increases our understanding of

the culture and climate of an educational institution. The case studies presented in this discussion illustrate how ethnographic auditing has become an instrumental means of measuring and shaping the effectiveness and efficiency of management in higher education.

Ethnographic auditing is the application of ethnographic or anthropological concepts and methods to the appraisal of administrative controls over organizational resources. By adopting an ethnographic auditing approach, the evaluator can focus on resource control - a topic that is fundamental to sound management.

The value of ethnography in educational research has been demonstrated in collections such as Ethnography in Educational Evaluation (Fetterman 1984) and Educational Evaluation: Ethnography in Theory, Practice, and Politics (Fetterman and Pitman 1986). Ethnographic techniques are useful in describing how a program works - the processes and interrelationships of program practice. In addition, the case for qualitative approaches in educational research is convincingly made in works such as Qualitative Evaluation Methods (Patton 1980), Qualitative Data Analysis (Miles and Huberman 1984), and Introduction to Qualitative Research Methods (Taylor and Bogdan 1984).

Traditional quantitative techniques such as psychometric testing are appropriate for assessing certain educational outcomes in the classroom. Cost benefit analyses represent useful contributions to assessing the relative worth of the educational "treatment". Auditing has an older -- and less popular -- tradition in educational administration and evaluation. Typically, auditing is categorized as fiscal or operational in nature. Fiscal auditing focuses on accounting and compliance issues: the emphasis is on establishing accuracy in financial reporting. Operational auditing subsumes fiscal auditing; it

focuses on such administrative concerns as the duplication of resources, transaction flows, and bottlenecks in the system. Staffing levels and budgetary controls are also overarching concerns of the operational auditor (see Sawyer 1981; Ritternberg 1977).

Ethnography and auditing have each been used to describe and evaluate management. Guba (1981), Halpern (1983), Lincoln and Guba (1982), and Schwandt and Halpern (1984) have discussed the role of auditing as a tool to ensure the credibility of findings collected using a naturalistic inquiry approach. Unfortunately, individually, these approaches fall short of measuring the effectiveness and efficiency of management. This discussion combines ethnography and auditing to describe a more comprehensive approach to evaluating university management. Together these two methods of assessment form a qualitatively different approach to the study of higher education. On the one hand, applying an ethnographic approach to audit concerns both transcends fiscal auditing and improves operational auditing. On the other hand using audit concerns as a focal point for ethnographic data collection and analysis increases the relevance of the evaluator's findings and recommendations. A synthesis of the two approaches provides a new conceptual outlook toward the evaluation of management. The introduction of ethnographic auditing is a conscious effort to redirect research in higher education. An anthropological orientation enables the evaluator to capture the multiple realities of university life. Ethnographic auditing focuses on management's ability to plan, analyze, supervise, communicate, and generally to control resources. This approach addresses often neglected but fundamental elements of the daily lives of managers in postsecondary institutions.

This research is based on over five years of auditing, from an anthropological perspective at Stanford University and other institutions of higher education in such areas as the chemistry department, physics department, library, accounts payable, personnel, a teaching hospital pharmacy and emergency department (see Fetterman 1986 for an illustration of ethnographic auditing in these departments), and a linear accelerator. Ethnographic auditing highlights the role of culture, subculture, values, rituals, and physical environment in management in higher education. In addition, ethnographic auditing demonstrates the economic consequences of adopting various philosophical orientations or world views, the role of management information systems, the value of data bases for decision making, and the roles of judgement, institutional life cycles, and honesty in management. Ethnographic auditing can improve management and, in the process, facilitate the institutional academic mission.

Guiding Principles: Appraisal, Description, and Control

Ethnographic auditing combines elements of ethnography, evaluation, and auditing. Ethnographic methods of description and anthropological concepts guide inquiry and interpretation. Evaluation is used to make a judgment or appraisal of the system under study. As a subdiscipline within evaluation, auditing focuses on resource control and provides an opinion on existing fiscal and operational controls in an organization.

As in ethnography, operational auditing requires a survey period in which the auditor determines the most important areas of investigation, in addition to those routine or already prescribed areas. This survey is a typical ethnographic, grounded theory approach (Glasser and Strauss, 1967). The auditor must develop a proposal including a time line and budget to accomplish the objectives presented in the proposal.

As in contract research, the auditor then enters into negotiation with managers or directors to determine the amount of time to be budgeted and the methodology to be used. The end product is a plan to assess the degree of control a departmental manager, director, or chairperson has over operations - whether on the academic or on the business side of the university.

The auditor borrows methodology for this study from various fields including evaluation and psychology. Random samples are used to test attributes of a population. Discovery sampling are used to identify a particular entity or problem. Judgment sampling, or purposive sampling, along with interval sampling are probably the most commonly used set of tools in auditing. In general, as in evaluation, the auditor's judgment takes precedence over statistical sampling. Most of the data are recorded on spread sheets in a tick and check fashion. This is a vestige of auditing's origin in the accounting or financial side of organizational study. In addition, budget calculations and inventory calculations are routine. Increasingly, ethnographers and other social science academics are being hired to analyze the processes in a department from a systems perspective. These systems analysts determine whether any "bottlenecks", dysfunctional organizational structures, and/or conflicting cultural values exist that inhibit day-to-day operational activity or productivity. The ethnographic auditor -- like the systems analyst -- is an outsider, a position that gives the individual greater objectivity. An ethnographic audit looks at both the financial and operational components of management. Organizations pick up bad habits much the way that individuals do, and management needs to become aware of these habits. The ethnographic auditor measures the

fiscal and operational backbone of an organization within its own cultural context. This assessment is critical if the organization is to accomplish its academic mission[1].

Formative Evaluation

Auditing is a formative evaluation of the management process in the educational institution. Audits are ongoing evaluations of management's ability to plan and analyze departmental data for decision making. Planning and analysis may range from budget forecasting to calculating staffing levels and equipment needs. Ideally, the operational auditor serves as a managment consultant - aiding and assisting managment (see Matthews 1983). The auditor communicates findings throughout the study by means of the audit memo. These memos identify key concerns and test interpretations of events or activities. Many problematic concerns can be remedied before the final report is issued and therefore need not appear in the final report. Minor infractions involving compliance issues such as an expiration date on a piece of equipment, a minor bookkeeping error regarding a par value or number of stock, or a potentially embarrassing personnel problem can be remedied in the course of an audit and in the process a healthy rapport can be established. At its worst, auditing is merely a compilation of compliance issues regarding university and federal rules and regulations. At its best, it is an essential guide and check on management.

Auditing looks for manifestations of meaning, cognition, competence, and quality. Auditing speaks the language of management: translating budgets, ledgers, equipment rosters, and numerous other forms of fiscal information into pragmatic assessments of the present and recommendations for the future. In an educational institution, management is the support mechanism that enables the departments to

pursue their given academic mission successfully. Auditing tests the ability of this infrastructure to support the educational process.

Role and Access

There are many kinds of auditors. One is the stereotypic ominous IRS agent who reviews taxes. Another kind is an external auditor, who is called in to study almost exclusively the fiscal side of an organization's operations. Then there is the internal auditor or operational auditor -- or management consultant (see Sawyer 1981, Brink 1982, and Rittenberg 1977 for a review of modern internal auditing). This individual works for the institution, where the tax auditor or the external auditor works for an external agency. As a result, the internal auditor has access to all facets of the organization. Senior management benefits from the internal auditor's assessment of their operation and supports their efforts - often to protect themselves from external inspections, evaluations, and audits. During an audit, senior management generally sends the word out to the staff that they are to hold nothing from the internal auditor. As long as the internal auditor demonstrates that he or she is there to help management, information flows freely. In fact, the auditor has immediate access to information not made privy to most evaluators or ethnographers. Moreover, auditors work on site every day, much as an ethnographer does, becoming immersed in the daily operations of a department. The audit process opens up all sorts of information that reflects the realities of daily operations. When the internal auditor acts merely as a compliance expert, however, the flow of information dries up rapidly -- regardless of the signals from senior management.

Unfortunately, the label "auditor" carries a general stigma

(Goffman 1963). Most individuals unacquainted with the role of the internal auditor lump all auditors together. They forget that intracultural diversity exists within all groups. A second problem involves the law of diminishing returns -- which applies to auditing as it does to evaluation and ethnography. Individuals have a limit to the amount probing and testing they can tolerate. Time, experience, and open discussion are required to dispel misperceptions and inaccurate assumptions. The auditor's, evaluator's, or anthropologist's professional judgment will always be the most significant factor determining acceptance in the field.

Auditing's Contribution to Management

From the auditor's perspective, the most significant variable of management's function within an operation is control. Does management have control of its operation? Control requires valid and reliable data, checks and balances, and security. Accountability is fundamental in management. It is important to identify the location of a problem when it arises as soon as possible if the organization is to be placed back on course. Built-in mechanisms of accountability allow management to monitor and test old and innovative approaches. The security of knowing that the ship is on course allows management to fulfill its most important function - looking toward the future. Auditing focuses on such operational components as a department's operational efficiency (including productivity), planning and analysis, data for decision making (management information systems), supervision, workspace, staff development, and various other manifestations of the quality of management such as record keeping practices. The auditor evaluates management on its own terms. Auditing adds an insight as well into the backbone of an organization, using rigorous procedures that are both

understood and accepted by those being evaluated.

Ethnographic Auditing's Contribution to Management

Understanding how management thinks or simply what makes management tick is at the core of ethnographic auditing. Ethnographic auditing evaluates management on a cultural level of analysis. Every organization has a culture.[2] Organizational culture typically consists of shared knowledge about specific status levels, overlapping hierarchies, specific languages, sacred symbols, rituals, and behavior. "A strong culture is a system of informal rules that spells out how people are to behave most of the time" (Deal and Kennedy, 1982, p. 15). Cultural knowledge is the information an individual requires to function within an organization. An anthropologist studies a culture to learn the insider's cultural knowledge and so better understand the patterns and processes of that culture. Similarly, the auditor who approaches an audit from a cultural perspective learns the cultural knowledge that underlies organizational behavior. The evaluator who combines the auditor's concern over resource control with ethnographic or qualitative methods is able to address the more penetrating management issues in higher education.

As the central locus of instruction and research, a university or college is a distinctive part of the larger academic culture. In the university environment, efficiency and sound fiscal planning must be weighed against the need to provide an environment conducive to education and exploration. Viewing a university from a cultural perspective rather than exclusively from a compliance orientation improves an audit or evaluation. Conceptually, a cultural orientation reinforces an operational audit and broadens educational research in

administration. It provides concepts to guide inquiry and interpretation. Methodologically, a cultural approach offers effective techniques to conduct operational audits in the same manner in which they have been applied to evaluation (see Fetterman, 1980, 1984a, 1984b; Fetterman and Pitman, in press). Anthropological methods of particular value in auditing and administrative research in higher education are presented throughout this discussion. These techniques include participant observation (Pelto, 1970; Spradley, 1980), key informant interviewing (Spradley and McCurdy, 1972), informal and structured interviews, expressive autobiographical interviews (Spindler, 1970), and triangulation (Webb, Campbell, Schwartz, and Sechrest, 1966). In addition, the following unobtrusive measures may be used: physical traces, archives, folktales, proxemics (Hall, 1966), and questionnaires. In each of the cases illustrated in this discussion, the auditor's concern with resource control has been merged with a cultural interpretation of events and anthropological techniques. This approach has proved useful in identifying the problem, collecting the data, and analyzing or interpreting the data.

The anthropologist's cultural approach draws attention to the systems level of analysis. This view illuminates the interconnected nature of a department or an entire university. Functional and fiscal relationships are intertwined entities. In addition, the cultural perspective focuses on the structure and values of an organization. They shape the behavior of professors, administrators, students, and staff. Adopting this perspective enhances the relevance of findings for the auditor or evaluator. Finally, understanding the cultural context of the evaluated program increases the probability that the client will accept both the evaluation findings and the evaluator's recommendations.

Auditing a university on a cultural level requires attention to both specific practices and underlying systems. The auditor or researcher must study specific charge documents, productivity statistics, computer use, personnel records, work space conditions, health and safety concerns, procurement transactions, cash handling controls, as well as equipment, payroll, and travel controls. These specific mechanisms are manifestations of underlying systems, including operational efficiency, planning and analysis, supervisory structures, and information systems. These fundamental systems and processes lie at the heart of university culture.

Case Studies

Case studies provide a graphic means of illustrating ethnographic auditing's contribution to the improvement of management. Two case studies -- the University Library and the Chemistry Department -- illustrate the utility of ethnographic auditing and the role of cultural data collection and interpretation in educational administration. In addition, the role of philosophical orientations, the use of management information systems, supervision, leadership, the physical environment, and fiscal communication in management are discussed. Due to the sensitivity of auditing information, however, sensitive or confidential details of each case study have been omitted. In addition, a discussion of these findings was delayed until the problems were rectified or significant parties had transferred to new positions. This presentation emphasizes basic generalizable patterns and descriptions.

University Library

One of the Associate Directors of the University Library requested our assistance to evaluate the effectiveness and

efficiency of the Library's Technical Services division. Technical Services is composed of three departments: Acquisitions, Cataloging, and Serials. The Acquisitions Department houses five units: Search and Order, Processing and Receipts, Gifts and Exchange, Binding and Finishing, and Conservation. The first three units are responsible for acquiring titles to be processed by the Catalog Department. The last two units are concerned with the physical preservation of monographs and serials.

The Catalog Department houses ten units. The two largest units are Copy Cataloging and Monographic or Original Cataloging. Copy Cataloging receives the bibliographic data required to catalog the monographic titles from the Research Library Information Network (RLIN) system. They process the largest number of titles that enter the library. Copy Cataloging is conducted by staff level employees. The Original Cataloging unit processes all monographic titles that do not have Library of Congress or RLIN bibliographic data. This involves the intellectual effort of conducting authority work and properly classifying and processing a title. Original cataloging is conducted by professional level employees. This is, of necessity, a high cost, low numerical output unit. The other units in the Catalog Department include: Music Cataloging, Special Collection Cataloging, Meyer (undergraduate library) Cataloging, Added Copies/Volumes, Filing Maintenance, Transfer/Cancel, and a grant project.

The Serials Department is responsible for acquiring and cataloging serials such as journals and other continuing titles. The department is composed of a Serials Records division and Serials Cataloging division. The Serials Records division is composed of

the Procurement and Receipt Unit and the Continuations Maintenance Unit. The Serials Catalog Division is composed of: an Original Cataloging Unit, a Copy Cataloging Unit, a Database Maintenance Unit, and a Special Materials Cataloging Coordinator.

The Assessment

The overall assessment was not positive. There were a number of problems that warranted attention. The problems ranged from a poor conception of the institutional mission to conflicting world views and value systems.

The core of the problem was that the library had a weak and fragmented cultural system. There was no central conception of purpose. The library had lost their mission in a mazeway of departments and a labyrinth of processing and cataloging rules and regulations. The ethnographic audit findings were useful in revitalizing the library's cultural system by reminding management and staff of their mission. The auditors provided a simple mechanical model of their operations to assist them in defining their purpose. In essence, the ethnographic audit attempted to make explicit their implicit cultural rules and values.

Technical Services is a complex production system. Its operations are based upon an implicit, systems approach. Industrial engineering terms facilitated communication with management. Their system was defined in terms of: inputs that are passed through a conversion process to provide outputs. In Technical Services, a title is passed through a series of conversion processes, defined in the Catalog Department, and packaged in the Binding and Finishing Department. The processing is complete when the title is placed on the library shelves for use. The output is a

properly bound, catalogued title physically accessible to a user. There are, of course, many sub-routines within each component of the system's flow pattern. This was, however, their basic mission -- the cultural thread that held them together.

In this fragmented cultural system each of the departments and subunits represented subcultures. Their poorly defined cultural system was confounded by subcultural conflict.

> All companies have subcultures, because functional differences...single out special aspects of the business environment.
> ...Each has its own relevant environment and world view: special heroes, rituals, ceremonies, language, and symbols communicate particular values. Subcultures can shape beliefs and determine behaviors in much the same way that culture can. " (Deal and Kennedy 1982, p. 151).

From an audit or evaluation perspective, the library management paid insufficient attention to the efficient coordination of production operation details and the summative effect of a unit or department's processes and procedures on the whole system. Translated into cultural language, the subcultures clashed and produced maladaptive behavior patterns, e.g. low morale and productivity. This problem was discovered by using such techniques as key informant interviews, informal interviews, expressive autobiographical interviews, archival materials, and listening to folktales about the library from various librarians. The original catalogers represented the most vocal and anti-mainstream subculture. They provided detailed accounts of what they perceived as personal injustices inflicted on them by management. They had their own anti-library heroes who had won grievances with library administration. The folktales generated from these events were shared with the ethnographic auditor to highlight their individual complaints. Heroic figures in the subculture were extremely articulate

key informants who provided vivid accounts of their life in the library, often extensively documented. Their autobiographical accounts focused on their professional clashes with management. Archival data, such as newspaper articles were also useful in documenting the problem. Many of the librarians had repeatedly voiced their displeasure with management in the campus newspaper over the years. They described the working climate as oppressive and hostile. In addition, an overwhelming number of grievances stemmed from this subculture. The grievance documents represented another useful archival data source to triangulate individual reports. Interviews with management were of value in placing this problem in an institutional context. Management was attuned to this problem because they had for several years perceived this subculture as ripe for unionization.

> subcultures can be very destructive in weak cultural environments. When the corporation's values are impossible to understand, a subculture can dictate behavior, and eventually cause a sort of cultural drift in the company (Deal and Kennedy 1982, p. 152).

Library staff and management shared few values. In fact, value conflict was epidemic and manifested in plethora of dysfunctional behaviors. For example, from a management perspective, data for decision making is fundamental. In this case each department and subunit had its own separate information system. Technical Services did not have an information system that collected, aggregated, and monitored productivity data in a systematic fashion. There were many professional forms and data sheets throughout the library. A cursory review had suggested that the elaborate data collection system was effective. After a few informal interviews with the librarians, however, we learned of their frustration with the data

collection system. Since they worked in discrete units or departments, they were unable to identify the source of the problem. We viewed the system holistically and attempted to track books through the entire system. We observed immediately that forms used to collect statistics were not designed to reflect management information needs. The Catalog Department aggregated copy, original, and variant edition categories into a single category -- titles. This practice hid the variation within each category, that is required to identify where a production problem exists. This type of problem was endemic to the entire system.

We recommended a management information system including: well-defined goals and objectives (including numerical goals); input and output data to measure workflow; output standards; a measuring device to account for how staff allocated their time to complete tasks; a feedback signal or monitoring component to evaluate their progress towards specified goals; and a protocol for corrective action (Garrett and Silver 1966). Culturally, we also recommended that management attempt to reinforce the subcultures rather than waste time attempting to crush specific subcultures. We believed that it was important to

> Encourage each subculture to enrich its own cultural life. Rather than be afraid of subcultures pulling apart, a symbolic manager will seek to strengthen each subculture as an effective cabal within the overall culture. Thus, he or she will often attend functions called to celebrate a particular subculture; participate in special awards for the heroes of the subculture; and generally endorse the subculture's existence and meaning within the larger culture (Deal and Kennedy 1982, p. 153).

Committees formed of members from various subcultures joined to address common problems. This served to sensitize them to each others concerns

and problems. The emphasis was on using subcultures to enrich the larger culture. The effectiveness of this recommendation was limited by the weakness of the existing cultural system. However, it was successful in reducing the existing tension for a majority of the subcultures in the library.

Supervision

The supervisory system also needed improvement in the library. The most significant areas of weakness included: standards of performance and evaluation and span of supervisory control over staff. The standards of performance and evaluation criteria were not explicit or commonly understood. This led to inconsistent appraisals and misevaluations, resulting in what appeared to be inappropriate terminations.

> If people tend to see the firing as arbitrary and unfair, they become confused and upset. In one fell swoop, the culture is called into question (Deal and Kennedy 1982, p. 73).

The lack of clearly established and mutually agreed upon goals and standards unnecessarily exposes management to charges of perceived inequities or capricious decision making. Once consistency and the foundation of due process is established, rituals are useful tools to ameliorate untoward effects of appropriate but uncomfortable transitions.

> To bring these disturbing events under control, sophisticated companies provide elaborate rites. The rituals not only provide security during an unwanted transition but also put the culture on display and dramatize and reinforce its values and beliefs. Those managers who don't consider the dramatic aspects of a transition ritual will miss an opportunity to use it to extend the culture's influence (Deal and Kennedy 1982, p. 73).

The problem was clearly linked to poor leadership. A brief historical

review, based on archival data such as employement records and informal interviews, revealed that there had been a high degree of turnover in management positions. According to the Associate Director, the circumstances included four changes in (Catalog) Department Chiefs in the past five years, a change in the Associate Directorship four years ago, and three changes in the Original Cataloging Unit Head's position. In addition, the Chief of the Catalog Department and the Acquisitions Department had only been at Stanford for approximately two years at the time of the study. This degree of turnover resulted in a lack of continuity in leadership and in management expectations of staff performance. This in turn was linked to staff concerns and an unclear understanding of their roles.

Workspace

An ethnographic audit views the physical environment as part of the cultural system. Workspace in Technical Services was not conducive to an efficient production workflow. The limited space available was poorly organized. Equipment was not located in a manner that contributed to efficiency. In addition, the lack of privacy, noise, and poor air circulation were not conducive to efficient operations. This contrasted with the plush new offices of the public service librarians who worked with students and professors at the reference desk, the computer terminals, and in the stacks.

> Discrepancies in the way physical sites are arranged for different classes of employees is one sure sign of a weak or fragmented culture (Deal and Kennedy 1982, p. 130-131).

Participant observation was instrumental in sensitizing us to this problem. We studied the library culture for over six months. We were involved in their daily lives. Every day we would interview staff, eat

lunch with them, and periodically help them with an acquisition or cataloging task. The validity of their complaints regarding work space inadequacies could be easily verified during daily observation, documentation of physical traces (including poor lighting, cramped quarters, and poor air circulation) and participation in their work lives. In addition, the ethnographic auditor took the time to interview librarians at various comparable research libraries throughout the United States and learned that this particular conflict was part of the larger research library culture. This particular conflict, including the physical manifestations represented in work space conditions, were typical of the relationship between technical service and public service librarians in research libraries throughout the United States. Nevertheless, an ethnographic auditor is a change agent who attempts to move their organization beyond the status quo. In this regard, we recommended extensive renovations of the workspace (which are being completed at this time) to eliminate the vast discrepancy between the plush surroundings of the public service librarians and the "sweatshop" conditions of the technical service librarians. The disorganized work station arrangement compounded the problem and represented an additional manifestation of the cultural disarray in the organization. All of these maladaptive patterns impeded productivity.

Chemistry

The Chemistry Department of Stanford University is responsible for providing undergraduate and graduate level academic instruction. The Chemistry Department provides required courses in the School of Humanities and Sciences and in the School of Medicine. In addition, the department's research endeavors have received international acclaim.

The Chemistry Department is under the administrative umbrella of Humanities and Sciences. The Chairman of the Chemistry Department reports to the Dean and the departmental Administrative Manager reports to the Chair. The Administrative Assistant, two Office Assistants, and the Accountant, report directly to the departmental Administrative Manager. Service center staff members (five) report to the Administrative Assistant.

The Assessment

The assessment of this department was positive from an ethnographic auditing perspective. However, the same department would have been evaluated as hopeless from a conventional audit or evaluation perspective.

The ethnographic audit concluded that significant progress had been made since the current staff took control of the Chemistry Department's administration. The organization and maintenance of budgetary records represented one of the most noticeable improvements made by the new staff in the department. Monthly expenditure statements, requisitions, and other related fiscal records were readi y accessible and amenable to analysis. This compared favorably with the haphazard organization and maintenance of fiscal records for the years under the preceding departmental administration. In this case, dated archival data such as budgets, personnel records, requisitions, and property equipment records provided documentation of the difference between the old and new management behavior patterns.

From an audit perspective, this was a good beginning. From a cultural perspective, this was a significant feat in itself. A basic set of work rituals had been established. The rituals gave everyone a

sense of security about what they were doing.

> Prevailing ideas about the importance of tangible results in business obscure the ritualistic part of work...
> ...Unlike social exchanges, work rituals do not produce direct results, but they are just as valuable because they provide a sense of security and common identity and assign meaning to mundane activities.
> In a way, of course, it is the business of culture: it provides a way for people to justify a belief in their own self-worth and that of their work. But work rituals are important to the company as a whole. They signal to the outside world just how effective the culture is, especially if the product is intangible. By recognizing this importance, companies can use work rituals to help build a strong culture that will produce even better results (Deal and Kennedy 1982, p. 67-68).

From an ethnographic audit perspective, this was an achievement, a manifestation of their new cultural strength and sense of identity and purpose. This was worthy of mention in the audit report. However, it would have gone essentially unnoticed in a conventional audit or evaluation of the department.

There was still more to be done to establish fiscally stable operations in the Chemistry Department. The absence of long-range planning and indecision were the two most significant obstacles that impeded the establishement of stable and predictable fiscal affairs.

There were no established academically and administratively integrated long-range plans regarding departmental program activities. There were no corresponding sets of goals, objectives, and timelines to guide and monitor departmental plans on various levels. Another fundamental obstacle that significantly detracted from departmental operations was indecison and lack of follow-through. There were numerous short range plans that were well researched and reflected an accurate understanding of departmental needs. Unfortunately, few of these well designed plans were implemented. These types of decisions

and subsequent actions ranged from budget forecasting and service center charge-out rates to service center financial bookkeeping practices. The problem of indecision and lack of follow-through also extended to the development of a formal system of written personnel evaluations.

Their single most significant fiscal weakness in the department was that they had no concept of the future. There were no formal written projections for any of the Chemistry Department's budgets: administrative operating budget, undergraduate laboratory budget, or the service center budgets. Written projections are useful tools to monitor finances and should be used as a signal to adjust spending habits. The purpose of forecasting is to project end-of-year spending based on current fiscal behavior. Projected overdrafts serve as a signal to alter one's current fiscal behavior to enable the department to close the fiscal year with a balanced budget. This lack was compounded by the mixed messages the department received from administration - messages that inadvertently fostered fiscal irresponsibility and dependency.

The Chemistry Department had been operating according to a de facto administration subsidization plan. Charge-out rates in the service centers were set at an artificially low rate that resulted in predictable overdrafts. These overdrafts were routinely subsidized by administration at the close of the fiscal year. The Chemistry Department needed to make a conscious decision to either set Chemistry Stores mark-ups at the percent needed to reflect actual costs or request administration subsidization in advance to offset this mark-up and to prevent overdrafts and de facto administration subsidization that is not budgeted.

Our own service center projects indicated that Printing, Glassblowing, and Microanalytical service centers required immediate

attention to offset projections. Another service center had no income or expectation of forthcoming funds to operate it. However, its operating cost was projected at over $100,000 a year. In this case the data provided by their management information system was accurately collected and simply presented, but no one paid any attention to the report. The information provided a signal that they were underfunded and should either request funds from administration, have the faculty subsidize the shop with research grants, or close down. In making no decision, the management made a decision with serious fiscal consequences. At the same time, decisions regarding budgetary matters are not cast in stone. Mark-ups, for example, can be variable as compared with fixed percentages. The fiscal rationale for any change in charge-out rates, however, should be documented and verifiable. As stated earlier, adminstration had developed a pattern of absorbing the deficit and scolding the department at the end of the fiscal year. The combination of available information and this form of de facto subsidization created additional confusion, distrust, and resentment between the department and the administration over the years. The fault, however, was management's (on both sides) for not paying attention to early projections of the department's expenditures. Management information systems are informational in nature -- they inform decision making and signal the need for decisions; they are never a substitute for management decisions.

The department was like a ship without a rudder - aimlessly adrift. There were no shared values about the present. Therefore, it was impossible to project for the future. Moreover, the implicit cultural values communicated to the department were inadvertently paternalistic

and served to weaken the department's cultural system. Our findings were based on traditional financial archival data including departmental and administration budget records and correspondence. In addition, a variety of financial calculations were required to calculate appropriate mark-up rates. Informal interviews with both departments provided an insight into the distrust and resentment that this cultural practice and structural arrangement had created.

We recommended the use of fiscal projections using accounting software owned by the department to address their immediate needs. They provided reliable projections. Weighted projections were recommended to accurately reflect the budget cycles for each service center. A more significant recommendation emphasized the necessary to re-establish departmental priorities and make the necessary budgetary decisions required to stay within the budget. Mark-ups for the service centers had to be re-examined and adjusted to reflect actual costs. We also recommended that serious consideration be given to securing more competitive prices from outside vendors for glassblowing and microanalytical products. In addition, it was necessary to consider closing down one of the service centers. Their responsiveness to our recommendations throughout the audit (adopting 80% of the recommendations during the audit) was a more important indicator of the department's health than the projected overdrafts. It symbolized a vibrant, healthy cultural system - able to adapt to its environment.

> Strong cultures are not only able to respond to an environment, but they also adapt to diverse and changing circumstances (Deal and Kennedy 1982, p. 195).

As noted above, the problems illustrated by this department were symptoms of a larger disorder in the cultural system. An ethnographic audit provided a holistic view of the problem. Communication between

the department and administration represented the next level of analysis required to identify the source of this cultural malaise.

There is a mutually interdependent relationship between the Chemistry Department and the administration. The strength or weakness of this relationship is dependent on a healthy working relationship and constructive communication.

> In a strong culture, the (communication) network is powerful because it can reinforce the basic beliefs of the organization, enhance the symbolic value of heroes by passing on stories of their deeds and accomplishments, set a new climate for change, and provide a tight structure of influence for the CEO (Deal and Kennedy 1982, p. 85-86).

During our review of interdepartmental communications, we observed that communication between the Chemistry Department and administration had been less than satisfactory on both sides. The communication problem was most problematic on the implementation level between the Chemistry Department and administration. The most important area in which communication had been a problem was in budgetary affairs.

Information was routinely communicated verbally without written documentation to follow up and record agreements or disagreements. The Chemistry Department accountant and fiscal affairs officer in administration had only met once to discuss budgetary matters.

Moreover, the Chemistry Department was not convinced that a reasonable budget had been negotiated with administration. In this regard, the rationale for determining the budget appeared unclear and inconsistent. In principle, this year's budget is comprised of last year's allocation -- plus inflation and some minor adjustment. In practice, however, there was no apparent recognition of actual expenditures in determining next year's budget. For example, repair and

maintenance, photocopy, and telephone budgets were reduced even though last year's actual expenses exceeded some of the budgets.

Administration had not clearly and consistently communicated their fiscal policy based on limited resources and equity. For example, verbal communications from administration admonish the practice of going into overdraft. However, this is belied by the practice of routinely absorbing yearly overdrafts without sanction for the past 14 years. Moreover, administrative expectations were often perceived as implicit rather than explicit. A substantial transfer from administration to the Chemistry Department was promised to support service center operations several months before the audit. However, an audit memo was required to expedite the transfer.

There was ample documentation to suggest that the delay in transferring these funds was a function of poor communication and implicit expectations. Administration appeared to be waiting for the delivery of Chemistry's service center budgets - which were overdue. This rationale, however, was not dispelled or explicitly communicated to the Chemistry Department.

There were two additional situations that were indicative of the poor level of communications between the Chemistry Department and administration. First, administration did not respond to a Chemistry memo requesting additional staff. The memo was addressed to the wrong administrative officer (who worked two doors down the hall in the same office). This was perceived by administration as not going through the proper channels. Nevertheless, Chemistry's first awareness that it had committed an (intentional or unintentional) administrative faux pas was when it called administration about the specific problem. This situation evidenced poor understanding of adminstrative hierarchy and

social organization, as well as a faulty mechanism for correcting improperly routed departmental information.

Similarly, the Chemistry Department used departmental operating funds to purchase furniture. Normally, furniture is purchased for departments by administration. This was a conscious departmental decision and thus a manifestation of poor relations as well as communications between the Chemistry Department and administration.

Conclusion

University management is growing increasingly interested in the appraisal of organizational culture. Organizational culture consists of the shared beliefs and behavior patterns of an organization that enable its members to function and adapt to new environments. Identifying adaptive and maladaptive patterns of behavior on the organizational culture level has a long-term, holistic, and often incalculable impact on an academic institution. Ethnographic audits and evaluations of organizational culture question basic assumptions about management policy and practice in higher education.

Ethnographic auditing penetrates the surface of administrative knowledge. Noam Chomsky (1972), the prominent linguist depicts in his work Language and Mind a surface and a deep structure of language. The model[3] can be applied to management as well. This is most graphically illustrated by one of the auditor's most common tasks - reviewing spreadsheets. Auditors are trained to analyze the grammar of an electronic spreadsheet. Syntactic errors in spreadsheets that may have long range effects can be detected and remedied. The surface calculations of an electronic spreadsheet print-out provides an elementary insight into management practices. Questioning the

appropriateness and accuracy of underlying formulas contained in each cell, as well as the format of the spreadsheet itself provides insights on a much deeper and more abstract level. In essence, ethnographic auditors can understand the meaning of management.

Ethnographic auditing is a useful research approach to management and academe. It also fills a void in the organizational research literature regarding strategies of action (see Peterson 1985). Ethnographic auditing is an excellent preparation for individuals planning to enter advocacy research or administrative careers.

An understanding of the culture of an organization facilitates an evaluation of organizational culture in an academic institution. Cultural knowledge and cultural indicators guide audit concerns and shape audit recommendations. Similarly, focusing on resource control increases the relevance of organizational research to management.

Management is an area that has been studied using traditional evaluation and ethnographic techniques, but has yielded insufficient insight into the dynamics of educational management. Ethnographic auditing focuses on educational and administrative management elements of an institution. Ethnographic auditing is able to interpret the ledgers, processes, and procedures of management that serve to facilitate or to inhibit the academic mission.

Notes

1. See Mayhew (1979, pgs. 116-119) and Karol and Ginsburg (1980, pgs. 220-222) regarding an educational institution's academic mission.

2. Schall (1983, p.557) defines organizational culture as:

> a relatively enduring, interdependent symbolic system of values, beliefs, and assumptions evolving from and imperfectly shared by interacting organizational members that allows them to explain, coordinate, and evaluate behavior and to ascribe common meanings to stimuli encountered in the organizational context: these functions are accomplished through the mediation of implicit and explicit rules that act as cultural warrants.

3. This analogy is based on the work of linguistic transformationalists in reference to basic semantic qualitites of language in juxtaposition to simple structures of sound and morpheme. This analogy is not tied to the antequated but useful deep structure hypothesis proposed by Fodor and Katz (1964) and Katz and Postel (1964). Also see Donald Light (1979) regarding 'surface data and deep structure' analogies regarding organizational research.

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REFERENCES

Brink, V.Z. Modern Internal Auditing: Appraising Operations and Controls. New York: Wiley, 1982.

Bowen, H.R. Socially Imposed Costs of Higher Education. In O. Henry Lectures, Conflict, Retrenchment, and Reappraisal: The administration of higher education. Illinois: University of Illinois Press, 1979.

Chomsky, N. Language and Mind. New York: Harcourt, Brace, 1972.

Fetterman, D.M. Ethnography in Educational Evaluation. Beverly Hills, CA: Sage Publications, 1984.

-- Operational Auditing: A Cultural Approach, The Internal Auditor, 1986, 43(2):48-54.

Fetterman, D.M. and Pitman, M.A. Educational Evaluation: Ethnography in Theory, Practice, and Politics. Beverly Hills, CA: Sage Publications, 1986.

Fodor, J.A., and Katz, J.J. (eds.). The Structure of Language: Readings in the Philosophy of Language. Englewood Cliffs, N.J.: Prentice-Hall, 1964.

Garrett, L. and M. Silver. Production Management Analysis. Second Edition, New York: Harcourt, Brace, Jovanovich, Inc. 1966, pg. 11.

Garvin, D. The Economics of University Behavior. NY: Academic Press, 1980.

Glaser, B.G. and Strauss, A.L. The discovery of grounded theory: Strategies for qualitative research. Chicago: Aldine, 1967.

Goffman, E. Stigma: Notes on the Management of Spoiled Identity. Englewood Cliffs, NJ: Prentice-Hall, Inc., 1963.

Guba, E.G. Criteria for assessing the trustworthiness of naturalistic inquiries. Educational Communication and Technology. 29(2), 1981, pp. 75-91.

Halpern, E.S. Auditing naturalistic inquiries: The development and application of a model. Unpublished doctoral dissertation, Bloomington, IN: Indiana University, 1983.

Hopkins, D.S. and W.F. Massy Planning Models for Colleges and Universities. Stanford, CA: Stanford University Press, 1981.

Jedamus, P., Peterson, M., and Associates Improving Academic Management. San Francisco, CA: Jossey-Bass Publishers, 1980.

Kerol, N. and S. Ginsburg Managing the Higher Education Enterprise. NY: John Wiley and Sons, 1980.

Katz, J.J., and Postel, P.M. An Integrated Theory of Linguistic

BEST COPY AVAILABLE

Descriptions. Cambridge, Mass.: M.I.T. Press, 1964.

Lincoln, Y.S. and Guba, E.G. Establishing dependability and confirmability in naturalistic inquiry through an audit. Paper presented at the American Educational Research Association Anuual Meeting, New York, NY, March 1982.

Matthews, J.B. The Effective Use of Mangement Consultants in Higher Education. Boulder, Colorado: National Center for Higher Education Management Systems, 1983.

Mayhew, L. Surviving the Eighties. San Francisco, CA: Jossey-Bass Publishers, 1979.

McCorkle, C.O., and S.O. Archibald Management and Leadership in Higher Education. San Francisco, CA: Jossey Bass Publishers, 1982.

Miles, M.B. and Huberman, A.M. Qualitative Data Analysis: A Sourcebook of New Methods. Beverly Hills, CA: Sage Publications, 1984.

Patton, M.Q. Qualitative Evaluation Methods. Beverly Hills, CA: Sage Publications, 1980.

Peterson, M.W. Emerging Developments in Postsecondary Organization Theory and Research: Fragmentation or Integration. Educational Researcher, 1985, 14, (3), pp. 5-12.

Riesman, D. Can We Maintain Quality Graduate Education in a Period of Retrenchment. In D. Henry Lectures, Conflict, Retrenchment and Reappraisal: The administration of higher education. Illinois: University of Illinois Press, 1979.

Rittenberg, L. Auditor independence and systems designs. Altamonte Springs, FL: Institute of Internal Auditors, 1977.

Sawyer, L.B. The Practice of Modern Internal Auditing. Altamont Springs, FL: Institute of Internal Auditors, 1981.

Schall, M.S. A Communication-rules Approach to Organizational Culture. Administrative Science Quarterly, 28, 1983, pp. 557-581.

Schwandt, T.A. and Halpern, E.S. Qualitative Evaluation: Achieving Rigor Through Auditing Processes and Outcomes. Evaluation 1984 Presession, presented at the Evaluation Research Society/Evaluation Network Annual Meeting, San Francisco, CA, October 1984.

Taylor, S.J. and Bogdan, R. Introduction to Qualitative Research Methods: The Search for Meanings. New York: John Wiley and Sons, 1984.

Van Maanen, J. (Ed.) Qualitative Methodology. Beverly Hills, CA: Sage Publications, 1983.

Wolotkiewicz, R.J. College Administrator's Handbook. Boston: Allyn and Bacon, Inc. 1980.